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SUMMARY - Answers are given here to specific questions concerning planning of basic research in the USSR; allocation of priorities; authority of scientists versus institutions; direction of basic research related to the achievement of specific social goals; financing of basic research; basic research programs; selection of institutions; maximum usage of scientific personnel; basic research carried out in industry; transfer of knowledge to other institutions; and means used to stimulate individual initiative.

1. A group of US and USSR individuals concerned with planning basic research for their respective countries recently met and explored Soviet methods for such planning. Questions and answers are used for clarity in reporting the Soviet answers.

2. Question
How is basic research planned in the USSR? What mechanisms determine the overall level of support for basic sciences? How are the overall goals of the basic sciences determined?

Answer

- a. The planning of basic research in the USSR is a part of the overall planning of scientific research and development in the country. The overall level and the goals of the basic sciences, as is the case with all Soviet sciences, are determined by the Directives of CPSU Congresses, as well as by the appropriate decisions of the Central Committee of the Communist Party and of the Soviet Government. The development of future, five-year and one-year plans for scientific research is a component part of overall state planning.
- b. The preparation of plans for scientific research, including basic research, is preceded by the development of the main directions for the development of science and technology for the forthcoming five-year period. Proposals

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for the main directions of basic research in the natural and social sciences are worked out by the USSR Academy of Sciences (USSR/AS) together with the academies of sciences of the Union Republics, institutions of higher learning and Ministries and Agencies, and are coordinated with the State Committee of the Council of Ministers of the USSR for Science and Technology, and with respect to research in economic sciences--with the State Planning Commission of the USSR.

- c. The overall goals for the development of basic sciences are related to the resolution of the principal social and economic problems of the Soviet state: the economic and cultural progress of society and the constantly increasing prosperity of the nation. Plans for basic research are prepared on the basis of the economic and political problems of the country, the needs of technical progress as well as the development of science itself.
- d. The planning for the development of basic sciences within the State Plan has a recommendational character rather than a mandatory one. Considering the fact that as a practical matter it is impossible to foresee in advance in what area of basic sciences and precisely when a new important discovery or a decisive advance will be achieved, it is not considered advisable to make the State Plan specific with respect to the development of basic sciences.

3. Question

What determines the priorities and allocation of resources for basic sciences?

Answer

- a. The analysis of anticipated income and profits from the implementation of the results of basic research plays a relatively small part in the determination of the importance of research planned for execution.
- b. During the process of thematic and financial planning the importance of individual scientific directions, as well as the amounts of necessary allocations granted to the scientific research institutions of the USSR/AS are determined by the Sections of the Presidium and the branches of the USSR/AS. The scientific councils on the most important problems, attached to the USSR/AS, take an important part in this work. Decisions on priorities and provision of resources are based on the judgements of highly qualified specialists; in this connection the following criteria are used: the probability of a scientific breakthrough, the existence of a stock of preliminary scientific knowledge, the possibility of utilizing the results in other areas of basic science and in applied research, the existence of an appropriate material and technical basis, etc.
- c. First of all those scientific areas receive financing in which there are a large number of highly qualified specialists and in which scientific schools have been established.
- d. The preparation of subject matter for an institute's work is the province of the institute's director and scientific counsel. The plan to be financed out of the budget includes only those topics whose scientific importance and promise have been given adequately convincing substantiation by the scientists authoring proposals.
- e. In the USSR/AS all the projects which are provided for in the plans of the institutes are financed out of the general budget. Therefore, when financing is within the framework of the budget the problem of selecting a scientist to carry out a given project does not arise. In distributing additional resources allocated for accelerated development of individual

scientific direction, financing is provided first of all through institutes which over a period of years have proved themselves capable effectively to use the resources allocated.

- f. In our country not only the leading scientific directions of basic research are financed by resources from the budget, but also "forgotten" areas of science, which at the present time appear to be less promising. Such a system of financing is most suitable to the nature of fundamental research, since the history of science, particularly during the recent decades, contains many examples when it was precisely in the "forgotten" areas that outstanding discoveries were made.
- g. The possibility of implementing research projects that are new in principle, requiring substantial expenditures and involving risks, is governed by the ability of a given scientist to convince the scientific staff of his institute and the Presidium of the USSR/AS of the promise of the research he proposes.

4. Question

What is the authority of scientists, directors of institutes, chiefs of laboratories, the Presidium of the USSR/AS and the State Committee for Science and Technology as regards the formulation of programs and projects for fundamental research?

Answer

- a. In our country the authority of scientific organizations, officials and scientists, with respect to the formulation of programs and projects is determined by the procedure for planning basic research.
- b. The five-year plans for scientific research in natural and social sciences are developed by the branches of the USSR/AS, and after consideration by its Sections, are sent to the Presidium of the USSR/AS for approval. The branches, together with the scientific councils at the Academy, develop coordinating plans for the problems in natural and social sciences, as well as for scientific and technical problems.
- c. Although the scientific councils are consultative bodies, their recommendations carry great weight in formulating programs and projects for basic research for the Presidium, the branches and institutes of the USSR/AS, as well as for the academies of sciences of Union Republics and institutions of higher learning.
- d. A scientific council systematically receives information from the implementing institutions on the progress of research being carried out, as well as materials of conferences and symposia. On the basis of this information and with an account for the development of science abroad, the council develops basic recommendations on the directions and content of further research in a given field.
- e. The scientific institutions of the USSR/AS prepare annual thematic plans for work to be carried out on the basis of the five-year plans and targets provided for in the coordinated plans.
- f. In preparing plans for basic research the scientific institutions take into account the recommendations of scientific councils and the proposals of scientific collectives and individual scientists. The directorate and the scientific council of an institute consider proposals for new programs of basic research whose direction must not go beyond the overall framework for the activity of the institute that has been affirmed by the Presidium of the USSR/AS. Scientists participate very extensively in proposing

scientific projects: through the scientific council of an institute, the directorate, the council of scientists, a branch and the Presidium of the USSR/AS. The procedure for considering research projects is characterized by the collective nature of evaluating projects with extensive participation of experts at each stage of consideration. The financing of new projects is implemented through the institutes, inasmuch as the directorate is the body which allocates credits and takes decisions on all questions concerning distribution of funds. If necessary, an institute's directorate may apply for additional allocations from the funds of the Presidium of the USSR/AS or the State Committee for Science and Technology.

6. In formulating programs and projects for basic research the role of the personnel of planning organs consists mainly in coordinating the targets with scientific institutions, and also in coordinating research.

5. Question

To what extent and by what means is the direction of basic research related to the achievement of specific social goals?

Answer

- a. In resolving such complex problems as cancer, since they are many-sided, academic research institutes and institutes of higher learning take part along with the scientific institutions of a specific discipline (in this case medicine). In working on such problems, the goal of basic research, specifically that carried out by the USSR/AS, is, first of all the clarification of the most important theoretical questions which are basic for the solution of the problem as a whole. As a rule, the program of basic research on a given problem is developed by the leading scientific institution in that field. The various tasks involved are distributed among implementing institutes, in accordance with their scientific profile, and are included in the plans of these institutes. Then the results of basic research are transmitted to the leading scientific organization implementing coordination of the work on that problem.
- b. In the process of developing five-year and one-year plans for basic research the USSR/AS considers proposals from Ministries and Agencies for its work or participation in the development of scientific problems which are urgent for industry. If the USSR/AS recognizes a proposal as useful, the appropriate subject matter is included in the plans of the institutes of the Academy. The initiative for carrying out such research may also originate in the scientific institutions of the USSR/AS or with individual scientists; usually these are proposals from institutes and scientists whose research is already involved with industry. In individual cases direct agreements may be concluded between the institutes of the USSR/AS and industry, providing for scientific research on a profit and loss accounting basis.
- c. Applied research, as a rule, is carried out in industrial institutes and, in part, in institutions of higher learning. Within the framework of basic research, which comprises the larger part of research carried out by the institutes of the USSR/AS, the possibility of transformation of the research into an applied phase and later the development phase, is determined during the course of the work on the specific subject and in dependence upon the importance of the potential results of applied research.

6. Question

In the USSR, how is financing of basic research organized in broad and narrow areas of science, ie, how is long term financing of projects assured, which of necessity are of a long-term nature? How is stability assured under the conditions of a priority for basic research which changes from year to year?

Answer

- a. In our country financing of long-term subjects which carry on from year to year for a number of years is accomplished by annual financing of basic research primarily out of the State Budget.
- b. The necessary stability is achieved by an established procedure of future planning of scientific work. Annual research plans are prepared within the framework of the five-year plan. In preparing basic research plans for the next five-year period the continuing projects are necessarily taken into account and are also included in the new plan. This is how their financing is ensured for a new period of time.
- c. The stability of the subject matter of our basic research is, in the final analysis, determined by the priority of the most important scientific directions for each five year period, which is the basis for preparing plans for scientific research.
- d. Interim results, received in the course of carrying out long-term research, are discussed by the scientists' councils of institutes and in the event that they are very important, by the scientific councils attached to the Presidium of the USSR/AS. When necessary the discussion of such results can also be carried out in the branches or sections of the Presidium of the USSR/AS. The Presidium of the USSR/AS receives the scientific reports of the leaders of specific research projects.

7. Question

What are the various sources of financing and by what means do the funds from a specific source come to the organization carrying out research?

Answer

- a. The principal source for the financing of scientific research in the USSR is the State Budget. It ensures that the overall expenditures for science are covered to the extent of more than 60 percent.
- b. The amount of expenditures for scientific research and the sources of financing are determined for each scientific institution separately, and for institutions included in the budget are affirmed in the form of an estimate of expenditures. The estimate is the basic plan document which determines the annual amount of expenditures, the sources of financing, the purpose of expenditure of funds and their distribution by quarters of the year.
- c. The State Committee for Science and Technology may grant the USSR/AS additional allocations, out of its own reserve, over and above the amount of expenditures established for the Academy, in the case of most important scientific research projects.
- d. The scientific research institutions of the USSR/AS may also carry out scientific research and experimental design work on the basis of contracts with customers over and above the amount of expenditures established for scientific research in the national economic plan.

C-O-N-F-I-D-E-N-T-I-A-L

Funds received from customers for contract work planned in an estimate of expenditures are used for re-establishing credits and are disbursed to cover expenditures for implementation of thematic plans of research.

- e. The planning organs of the Presidium of the USSR/AS analyze and inspect the funds balances of scientific research institutions. In addition, periodic financial audits are carried out to check the state of financial and economic activities of scientific research institutions.
- f. Establishment of organizations for the purpose of carrying out basic research is not provided for within the framework of current financing. There is a single nationwide policy of developing scientific research in individual, economically promising, regions of the USSR, within the framework of which it is planned to establish new regional centers and individual organizations for the purpose of carrying out basic research.

8. Question

What are the mechanisms of financing in the USSR? How are funds distributed among them?

Answer

- a. Budget allocations for science are given to each Ministry and Agency in accordance with a plan for financing scientific research which is affirmed annually by the Council of Ministers of the USSR. Expenditures for science are planned without specific allocation of expenditures for basic research or scientific and technical (applied) research and development. Ministries and Agencies allocate to the scientific research institutions subordinate to them only the total sum of expenditures. On the basis of an analysis of accounts of the Ministries and Agencies relating to the progress of implementing scientific research plans and financing scientific research, the State Committee for Science and Technology, when necessary, redistributes financial resources between Ministries and Agencies.
- b. In addition to budget allocations, scientific research is financed by Ministries and Agencies out of their own funds. Non-centralized proprietary funds, used for financing research are at the disposal of enterprises and organizations and are accumulated from savings due to lowering cost of production.
- c. The scientific research institutions of the USSR/AS, engaged in basic research, may also carry out scientific and technical (applied) development pursuant to contracts entered into with the organizations of Ministries and Agencies.
- d. For the purpose of encouraging interdisciplinary research carried out in accordance with the coordination plans for the solution of basic scientific and technical problems, which are included in the five-year plan, the State Committee for Science and Technology has a reserve of financial resources deducted from overall budget allocations for science.

9. Question

In the USSR, how is auxiliary activity financed, which is intended to support basic research?

Answer

- a. In the USSR, the estimate of expenditures of scientific research institutes included in the budget contains a separate item used for planning allocations for scientific instruments and equipment.

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- b. The requirements for scientific equipment for the USSR/AS as a whole are computed on the basis of adding up the requirements of individual organizations, contained in the applications which they submit periodically. The USSR/AS acquires equipment produced by plants in the USSR as well as abroad.
- c. The initial equipment, installed in new buildings, is acquired under the capital construction item of the estimate of expenditures. Development and production of individual unique instruments and items of equipment is carried out in the design offices and at factories of the USSR/AS, as well as in the design departments, workshops and experimental production units of individual scientific research institutions.
- d. Requirements for bibliographic data are satisfied by the publication of reference journals, the issues of "Express Information," "Science Results" and other bibliographic materials which are the responsibility of the All-Union Institute for Scientific and Technical Information (VINITI). VINITI also satisfies applications from scientific research organizations for the translation of foreign publications and compilation of special bibliographic reviews with the aid of modern computer technology.
- e. The budget estimates of scientific research institutions provide for expenditures for repairs to instruments and equipment; expenditures are determined on the basis of actual need; in the summary calculation and estimate the ratio of these expenditures is fixed in relation to the residual cost of instruments and equipment.

10. Question

How is a basic research program carried out in the USSR? What are the mechanisms used in the USSR to determine whether basic research corresponds to planning? In the USSR, how is control exercised over research which is in the implementation stage?

Answer

- a. Whether basic research corresponds to planned research is established by analyzing annual accounts. The institutes of the USSR/AS transmit annual reports on implementation of basic research to the branches of the USSR/AS. The reports of the directors of institutes are also discussed at meetings of the bureaus of the branches and sections of the Presidium of the USSR/AS. The results of basic research and major projects on specific problems are considered by the scientific councils attached to the USSR/AS. In addition, completed research on natural sciences is as a rule evaluated by special commissions appointed by the branches or the Presidium of the USSR/AS.
- b. Scientific achievements in the natural and social sciences by the institutions of the USSR/AS, the academies of sciences of the Union Republics, the institutions of higher learning and the specialized scientific research institutes are discussed annually at the General Meeting of the USSR/AS.
- c. In the USSR/AS as well as in Ministries and Agencies, control over implementation of plans for scientific research and over the activities of the institutions, to assure that they correspond to approved scientific directions, is also carried out systematically in the course of intra-agency comprehensive audits of the institutes (once in three or four years).
- d. Control over research in the stage of implementation is the responsibility of the directors of institutes.

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11. Question

What are the mechanisms used for: a) selection of institutes or laboratories for carrying out planned research? b) the establishment of new research centers and laboratories? In the USSR, to what extent is purposeful competition encouraged between scientific research in organizations in carrying out basic research?

Answer

- a. The planning bodies select one scientific institution or another for the purpose of carrying out planned research as follows:
 - (1) by compiling a list of organizations engaged in corresponding basic research and examining the scientific activities profile that is closest to the newly planned work;
 - (2) by evaluating the scientific personnel and the material and technical base of these organizations and by narrowing the range of possible implementors;
 - (3) by evaluating the possibility of a specific organization carrying out the given task.
- b. A similar analysis is made by the scientific councils on problems of natural and social sciences when preparing coordination plans for basic research.
- c. New research centers are established after thorough discussion of the problem in the USSR/AS (or in academies of sciences of the Union Republics) and by considering all aspects of the problem. Proposals are transmitted to the government of the USSR. Decisions regarding establishment of a scientific center are taken by government bodies. Establishment of a new scientific institution is carried out by the State Committee of the Council of Ministers of the USSR for Science and Technology pursuant to requests from the USSR/AS or from an Agency after agreement with the Academy of Sciences.
- d. For the purpose of preventing a monopoly position in the development of any scientific direction of basic research, when necessary, scientific institutions are established which carry out research in related directions, or such research may be entrusted to already existing scientific institutions which, as a rule, are subordinate to other agencies. At the same time, measures are taken to prevent excessive duplication of scientific research.

12. Question

What special mechanisms and methods exist to provide for maximum efficiency in utilization of scientific personnel?

Answer

- a. Annually approximately 15 percent of the graduates of institutions of higher learning are brought into scientific work. The most capable young specialists are found with the help of the following: a broad network of student scientific, designing, planning and technological organizations in which students fulfill course and diploma work in accordance with the tasks set down by scientific institutions and industry; the pedagogical activity of scientists of the USSR/AS in institutions of higher learning in the process of which the most talented students are selected for subsequent work in the institutes of the Academy; training of students in academic institutes; the possibility of entering graduate school immediately upon completion of an institution of higher learning. The USSR/AS has regular conferences and competitions, at which the works of young scientists are discussed and their best works are subsequently published. The Presidium of the USSR/AS awards prizes for the best works of young specialists.

C-O-N-F-I-D-E-N-T-I-A-L

- b. To improve the scientific level of young specialists working in the area of applied research and in industry, specialized graduate study and training in the institutes of the USSR/AS are used.
- c. Older scientific personnel desiring to continue scientific work in the institutes of the USSR/AS to the extent that they are able, are made scientific consultants.
- d. Scientific councils of the institutes of the USSR/AS periodically review reports of laboratories on the results of their activity and discuss them.
- e. If certain research is judged to be unpromising or the institute changes the direction of its work, a reorganization of certain of its scientific subdivisions is possible; in such cases scientific personnel thus freed switch over to research in the new, more promising directions. As a rule the switchover is carried out on the basis of the desires of the scientific personnel themselves, who express a desire to work in the new directions.

13. Question

Is any basic research carried out in the USSR in industry? How is it organized and how is the level of such research determined?

Answer

- a. Basic research is conducted primarily in the institutes of the USSR/AS. In addition, part of basic research is carried out in institutions of higher learning (universities) and in scientific research institutes of specific ministries. As a rule such research is primarily oriented toward the immediate solution of practical problems. Approval of such research plans as well as their financing is given directly by the corresponding ministry.
- b. Scientists working in scientific institutes of the ministries keep in touch with scientists of the institutes of the USSR/AS either directly or through scientific councils, and by organizing joint scientific conferences.

14. Question

What is the policy and practice in the USSR with regard to transfer of scientists from one area into another?

Answer

- a. A scientist in the USSR can choose the area of his activity and freely transfer from one scientific institution or educational institution to another. With regard to government policy in this matter, it relies upon the principle of expedient use of scientific personnel. This principle is supported by the planned nature of training of scientific personnel in the USSR, which is based on the necessity to optimally provide all branches of science, the national economy, and state and cultural development with scientific personnel. In planning the training of personnel, decisions are made as to which areas of science and specialized fields need trained specialists and which a cas of science and specialized fields should be given preference during the planning period; primary consideration is given to provide training of personnel for the basic areas of scientific research in the country.

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- b. Incentives for transfer of scientists from one institution to another or from one region to another depend on the degree to which this corresponds to national interests. For example, incentives are given for transfer of scientific personnel to those regions of the country where there are not enough of them at a given time. Utilization of scientific manpower in the area of basic research is based on similar principles.
- c. With regard to participation of Soviet scientists in international scientific cooperation, specifically in the work of international scientific forums, this receives full approval and support in our country--both from government organs and also from our scientific community. This is also reflected in a broader participation of the USSR in international exchanges of scientific personnel.

15. Question

What policies and mechanisms are there to facilitate the transfer of knowledge received as a result of basic research to institutions engaged in research and development of an applied nature? What mechanisms does industry use to acquire and utilize the latest information received as a result of basic research?

Answer

- a. The direct way of transferring information on problems of primary significance for industry which have not yet been solved by science is direct request by the specific agencies to the USSR/AS, or the academies of sciences of the republics to conduct the basic research which is necessary for the industry. A significant role is played by the discussions of these questions at scientific and technical conferences in which scientists of the academic institutes and industry specialists participate, and also in scientific councils of the USSR/AS on problem areas. Direct working contacts between scientists and engineers are very effective, as is the conduct of joint work using the results of basic research.
- b. Exchange of information between various organizations and institutions engaged in research and development for industry is carried out through central specialized organs for scientific and technical information.
- c. In the USSR, the concept of "industrial secrets" does not exist as a matter of principle. On the contrary, exchange of experience is encouraged. Information on discoveries and inventions is transmitted to industry after it has been registered.
- d. Information on the results of basic research is also received by personnel from industry and other branches of the economy from scientific journals, collections of articles and monographs published by the USSR/AS. The Academy is the largest publisher in the world. Its yearly volume reaches 50 thousand author's sheets (sic).

16. Question

What means are used to stimulate the initiative of individuals to implement new ideas in the area of basic research?

Answer

- a. In accordance with the Regulations on Discoveries, Inventions and Rationalization Proposals in force in the USSR, the Government has the exclusive right to use inventions. The Soviet government takes upon itself the task of selling an invention through government, cooperative or public enterprises.

- b. The author(s) of an invention receive(s) remuneration for its use if the invention:
 - (1) is used in the national economy of the USSR;
 - (2) is used in documentation transmitted to another country as a part of economic and scientific and technical cooperation;
 - (3) is used at installations built by agencies and organizations of the USSR abroad as part of technical assistance to foreign countries;
 - (4) is sold through sale of licenses abroad.
- c. Remuneration for use of an invention is calculated separately on the basis of each of the above factors.
- d. The maximum amount of remuneration for a single invention cannot exceed 20 thousand rubles.
- e. For inventions whose use leads to the creation of new types of production, valuable materials, machines, manufactured products or medicines, the law provides for a possible threefold increase of remuneration within the limits of the maximum amount of remuneration.
- f. For a discovery, a one-time monetary remuneration of five thousand rubles is provided for.
- g. Remuneration for a discovery or invention not exceeding one thousand rubles is not taxable.
- h. The legislation in force gives inventors the right to participate in preparing for the use of their inventions: in drawing up technical documentation, preparing and testing test samples and in organizing production.
- i. Government agencies which have accepted an invention for use may use the technical documentation or model prepared by the author or instruct the author to perform this work. When this work has been carried out by the author without a working contract, the agency must conclude an agreement with the author which provides for payment for his work and reimbursement for expenses encountered in preparation of documentation or models. The sums determined by such an agreement are paid to the author independently of remuneration for use of the invention.
- j. An important method of government incentive is the right to give the author's name to a discovery or invention.
- k. The granting of an author's name to a discovery or invention is indicated in the diploma for the invention, the author's certificate, and also in the technical documentation, on the product or on the wrapping.
- l. In accordance with the legislation, authors of inventions may receive the title of "Honored Inventor of the Republic."
- m. The authors of outstanding discoveries and inventions may be awarded the Lenin and State Prizes of the USSR, 12 gold medals engraved with the author's name and 37 prizes named in honor of outstanding scientists, established by the Presidium of the USSR/AS, and inscribed prizes of the academies of sciences of the union republics and specialized academies.

C-O-N-F-I-D-E-N-T-I-A-L

- n. Scientific research institutes have special funds to be allocated as prizes to authors of discoveries and inventions.
- o. Authors of discoveries and the more significant inventions have the right to be accepted into institutions of higher learning without participating in the corresponding competition.
- p. Inventors also have certain privileges in the area of social security.
- q. The basic reasons which hold up the quick utilization of inventions are the following:
 - (1) lack of well-defined criteria for evaluating the economic impact of inventions;
 - (2) lack of auxiliary processes in certain cases to test inventions and prepare them for industrial utilization.

17. Question

Are there any well-founded indicators for comparing the efforts undertaken in the US and USSR in the area of basic research? What similarities and differences are there between the US and Soviet programs of basic research?

Answer

- a. This question is one of the most promising from the point of view of possible fruitful joint research. The basic aim of such research, in our opinion, must be the development of a methodological basis for comparative evaluation of the programs of basic research. In our opinion, one of the first stages can involve the development of an agreed classification of scientific areas.
- b. Answers to questions raised by each side may help to better understand the similarities and differences between the US and Soviet programs of basic research.

18. Question

How are recommendations in the area of science and technology used in working out the policy and program of scientific research? Through what mechanisms are recommendations in the area of science presented to the government for policy planning?

Answer

- a. The State Planning Committee of the USSR and the State Committee of the Council of Ministers of the USSR on Science and Technology prepare scientific recommendations and present information to the government of the USSR on the utilization of scientific results of basic research. From the point of view of expertise or consultation, such recommendations may be prepared by the USSR/AS, large institutes, scientific and scientific-technical councils, scientists and highly-qualified specialists.
- b. Persons responsible for making decisions can turn for scientific recommendations to the USSR/AS, academies of sciences of the union republics, ministries and agencies, the All-Union Council of Scientific and Technical Societies, scientists and highly-qualified specialists.
- c. Important scientific information is presented by the USSR/AS to the Council of Ministers of the USSR or to the State Committee on Science and Technology.

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- d. Recommendations in the area of science are prepared by individual departments of the USSR/AS, which base their work on the work of institutes and scientific councils; leading scientists take an active part in preparing and discussing these recommendations. In preparing the recommendations, scientific research institutions and organizations also determine the scientists who are to be consultants. In each specific case consultants are chosen from those persons who are most competent in the matters under discussion; preference is given to members of the USSR/AS.
- e. The Presidium of the Academy of Sciences and the State Committee on Science and Technology present recommendations on the development of science which have been agreed between them and conduct joint consultations when necessary to achieve such agreement.
- f. Recommendations on the development of science which serve as the basis for decisions by government agencies may also be presented by academies of sciences of the union republics or specialized academies.

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